HSCI 0600 - EMERGENCY MEDICAL TECHNICIAN CONTINUING EDUCATION

Catalog Description

Prerequisite: Must be eligible for certification or re-certification as an EMT in the State of California
Hours: 24 (16 lecture, 8 laboratory)
Description: Provides 24 hours of continuing education required for state re-certification as an Emergency Medical Technician (EMT). Reviews current standards for airway management and ventilation, patient assessment, cardiac care and resuscitation, injury management and stabilization, legal and ethical issues, vital signs, assisting with medication administration, and review of the updated and optional EMT scope of practice. Students update their psychomotor skills and demonstrate proficiency in organized skills labs. Students that successfully complete the course receive a certificate of completion. May be repeated for credit to meet legally mandated continuing education and re-certification requirements. (pass/no pass grading) (not degree applicable)

Course Student Learning Outcomes

- CSLO #1: Demonstrate the proper airway management technique for positive pressure ventilation of the unresponsive adult patient.
- CSLO #2: Demonstrate the proper extremity immobilization technique for a long bone fracture of an adult patient.
- CSLO #3: Explain the indications and contraindications of Naloxone Hydrochloride for an unresponsive opiate overdose patient.
- CSLO #4: Describe the management and intervention skills required during emergency childbirth and explain the indications and pathophysiology of childbirth complications.
- CSLO #5: Describe the management and intervention skills required during an acute anaphylactic reaction and use of the epinephrine intramuscular auto injector.

Effective Term

Fall 2023

Course Type

Credit - Nondegree-applicable

Contact Hours

24

Outside of Class Hours

32

Total Student Learning Hours

56

Course Objectives

Lecture Objectives:
1. Describe the role and responsibility of the EMT during scene size-up and scene safety;
2. Name the steps required to complete a primary and secondary patient assessment;
3. Explain the purpose of obtaining vital signs and how the information is used for patient assessment;
4. Describe the signs and symptoms of respiratory emergencies and pathophysiology of related causes;
5. Explain the intervention and management skills for respiratory emergencies required of the EMT;
6. Describe the signs and symptoms of cardiac emergencies and pathophysiology of related causes;
7. Explain the intervention and management skills for cardiac emergencies required of the EMT;
8. Describe the basic components of the circulatory system and the physiology of perfusion;
9. Describe the signs and symptoms of hypoperfusion and pathophysiology of shock;
10. Explain the EMT intervention and management skills for shock related emergencies;
11. Describe mechanism of injury and the physiology of critical trauma emergencies;
12. Explain the EMT intervention and stabilization skills required for critical trauma patients;
13. Describe the signs and symptoms and pathophysiology of musculoskeletal injuries;
14. Explain the assessment and management skills for stabilizing musculoskeletal injuries;
15. Describe the signs and symptoms and pathophysiology of neurological emergencies;
16. Explain the assessment and intervention skills for stabilizing neurological injuries;
17. Identify the indications and pathophysiology of childbirth complications;
18. Explain the management and intervention skills for emergency childbirth;
19. Identify the basic anatomical and physiological differences for pediatric patients;
20. Explain the assessment and intervention skills for different pediatric emergencies;
21. Describe the basic scene management skills for a hazardous materials incident;
22. Explain the EMT roles and responsibilities during disasters and multi-casualty incidents.
Lab Skills Objectives
1. In a simulated training scenario, perform primary and secondary assessment on an ill patient and recognize the signs and symptoms associated with medical emergencies;
2. In a simulated training scenario, perform primary and secondary assessment on an injured patient and recognize the signs and symptoms of associated with traumatic injuries;
3. In a simulated scenario demonstrate the ability to properly assess and recognize the need to administer the OTC medication aspirin.
4. In a simulated training scenario, demonstrate the ability to perform initial spinal stabilization and to securely immobilize a patient to a backboard;
5. In a simulated scenario, demonstrate the proper use of tourniquets and hemostatic dressings.
6. In a simulated scenario, demonstrate the proper use and interpretation of Pulse Oximetry;

7. On a simulated training manikin, correctly demonstrate the use of humidifiers, partial non-rebreather and venturi masks for oxygen administration;
8. On a simulated training manikin, correctly assess the patient presenting with a compromised airway and properly insert the oralpharyngeal airway adjunct;
9. On a simulated training manikin, correctly assess the patient presenting with a compromised airway and properly insert the nasopharyngeal airway adjunct;
10. On a simulated training manikin, correctly assess the patient with a compromised respiratory effort and properly demonstrate the use of the bag valve mask and administration of positive pressure ventilation;
11. On a simulated training manikin, demonstrate the application of the non-rebreather oxygen mask and proper delivery of high flow supplemental oxygen;
12. On a simulated training manikin, demonstrate the application of Continuous Positive Airway Pressure (CPAP) delivery of high flow supplemental oxygen;
13. On a simulated training manikin, demonstrate the application of the automatic external defibrillator and proper delivery of electrical cardioversion on the unconscious and pulseless patient;
14. On a simulated training manikin, demonstrate the proper application of the traction splint apparatus and stabilization of an orthopedic injury;
15. On a simulated training manikin, demonstrate the proper application of the air splinting device and stabilization of an orthopedic injury;
16. On a simulated training manikin, demonstrate the proper assessment of an obstetrical patient and the medical assistance required during emergency childbirth;
17. On a simulated training manikin, demonstrate the recognition of an obstetrical emergency and the required interventions for childbirth complications.

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- Not Transferable

Methods of Evaluation

- Problem Solving Examinations
  - Example: Students must demonstrate the ability to analyze numerous medical and trauma scenarios, identify indications and contraindications of medical care, and use critical thinking skills to select the appropriate course of action for patient management and interventions. Example: After performing an appropriate scene size up, you arrive on scene to find your patient pulseless and apneic. What course of treatment do you do first?
- Skill Demonstrations
  - Example: Student must demonstrate proficiency in the EMT skills. The National Registry Standardized EMT Skills Evaluation form will be utilized to assess student performance and ability to demonstrate proficiency of all EMT skills.

Repeatable

No

Methods of Instruction

- Laboratory
- Lecture/Discussion
- Distance Learning

Lab:

1. During a practical skills lab, the EMT Instructor will demonstrate the essential components of a primary patient assessment and the critical intervention skills necessary for initiating proper airway management and utilization of Continuous Positive Airway Pressure (CPAP) followed by a student demonstration.

Lecture:

1. During a lecture presentation, the instructor will lead a discussion on the pathophysiology of respiratory emergencies and discuss the ability of an EMT to recognize the various signs and symptoms associated with severe respiratory distress.

Distance Learning

1. Online lecture on shock, followed by students outlining and posting treatment for various types of shock. Use of the discussion board will facilitate critical thinking and group discussion. Students will be required to respond to a minimum of 2 others students initial responses which will allow for interaction between students and the instructor.

Typical Out of Class Assignments
Reading Assignments

1. Read the lesson plans on Respiratory Emergencies and explain the physiological differences of internal and external respiration. Identify the different types of respiratory compromise and explain the pathological differences of each condition. Describe the treatment interventions available within the EMT scope of practice. 2. Read the lesson plans on shock and explain the pathology of inadequate tissue perfusion, identify the different types of shock and the pathological differences, and describe the treatment interventions available within the EMT scope of practice.

Writing, Problem Solving or Performance

1. Given detailed information of an traumatic injury scenario, student will respond to a series of questions to identify critical steps performed in the primary assessment; describe what signs and symptoms would present with any given injury; and identify the correct interventions required for proper patient stabilization. 2. Given a realistic trauma scenario, the student will physically demonstrate the appropriate EMT skills and interventions required to properly stabilize and manage an arterial hemorrhage with the utilization of a tourniquet or hemostatic dressing.

Other (Term projects, research papers, portfolios, etc.)
Required Materials

- Emergency Care and Transportation of the Sick and Injured
  - Author: American Academy of Orthopedic Surgeons
  - Publisher: Jones and Bartlett Publishers

- Publication Date: 2016
- Text Edition: 11th
- Classic Textbook?:
- OER Link:
- OER:

Other materials and-or supplies required of students that contribute to the cost of the course.

Personal Stethoscope, B/P Cuff and penlight